

Notice of Allowability

Application No.

10/608,301

Examiner

Christopher A. Revak

Applicant(s)

KUMAR ET AL.

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the response filed on 9/10/07.
2. ☒ The allowed claim(s) is/are 1-39.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 11/7/07.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

CHRISTOPHER REVAK
PRIMARY EXAMINER

NOTICE OF ALLOWANCE

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jordan Becker on November 7, 2007.

The application has been amended as follows:

1. (Currently Amended) A transport processor comprising:

a front end to receive concurrently a plurality of transport streams, where two or more of the plurality of transport streams ~~can have~~ having different formats, each transport stream including a plurality of packets, the front end comprising a packet processor to create an aggregate transport stream in a single format from the plurality of transport streams; and

a memory interface through which the transport processor can store the aggregate transport stream in a memory for use by subsequent decode and display operations

18. (Currently Amended) A system on a chip (SOC) comprising:

a transport processor to PID filter, descramble, and demultiplex a plurality of transport streams, the transport processor including:

a front end to concurrently receive a plurality of transport streams, where two or more of the transport streams ~~can have~~ having different formats, and

a packet processor to create an aggregate transport stream having a single format from the plurality of transport streams;

a memory to store demultiplexed outputs of the plurality of transport streams;

and an output processor to retrieve one or more demultiplexed outputs from the memory and perform audio/video decode and display functions simultaneously.

23. (Currently Amended) A front end in a transport processor to receive a plurality of transport streams from digital receivers, comprising:

a switching matrix to receive concurrently the plurality of transport streams, where two or more of the plurality of transport streams ~~can have~~ having different formats, and to output a programmable subset of the plurality of transport streams;

a packet processor to receive the subset of the plurality of transport streams and to aggregate the subset of the plurality of streams into a single aggregate transport stream in a single format.

In claim 32, line 1, delete –pocket- and insert “packet”

36. (Currently Amended) A digital audio/video receiver system comprising,

on a single chip:

a transport processor including:

a front end, the front end including:

a switching matrix to receive concurrently a plurality of transport streams, including video and audio, each including a plurality of packets, where two or more of the plurality of transport streams ~~can have~~ having different media formats, each transport stream including a plurality of packets,

a PID filter to filter out packets that do not meet specified criteria, and

a packet processor to create an aggregate transport stream in a single format from the plurality of transport streams;

a memory interface through which the transport processor can store the aggregate transport stream in a memory for subsequent processing;

a descrambler to descramble packets read from the memory,
and

a demultiplexer to demultiplex packets read from the memory, for use by subsequent decode and display operations;

a digital decoder to perform video processing functions including decompression of video received from the memory and to store processed video in the memory;

an audio processor to perform audio processing functions including audio decompression on audio received from the memory and to generate an audio output of said digital audio/video receiver system;

a graphics processor to process graphics;

and a display processor to produce a display output of said digital audio/video receiver system by combining processed graphics and video from a plurality of sources to generate a display in any of a plurality of different display formats.

Allowable Subject Matter

2. Claims 1-39 are allowed.

3. The following is an examiner's statement of reasons for allowance: It was not found to be taught in the prior art of currently receiving a plurality of transport streams, the plurality of transport streams having different formats and a packet processor forms an aggregate transport stream, having a single format, from the received plurality of transport streams of different formats.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Revak whose telephone number is 571-272-3794. The examiner can normally be reached on Monday-Friday, 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CR



November 7, 2007

CHRISTOPHER REVAK
PRIMARY EXAMINER

